

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. Claims 1, 2, 9, 12, 13 and 19 have been amended, and claims 4 and 15 have been cancelled. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

Claim Objections:

Claims 2 and 13 have been objected to because of an informality. The claims have been amended to address this issue. Thus, reconsideration and withdrawal of this objection is respectfully requested.

Claim Rejections:

Claims 1, 4, 9, 12 and 19 have been rejected under 35 U.S.C. 112, second paragraph for being indefinite.

Specifically, claims 1 and 4 have been rejected for antecedent basis issues, with regards to the limitation “said packet allocated said packet identification information.” It is respectfully submitted that this limitation has proper antecedent basis. Specifically, the previous limitation in claim 1 recites: “packet identification information addition means for adding packet identification information to a packet to be transmitted.” This provides proper antecedent basis for “said packet” from “to a packet to be transmitted” as well as proper basis for said packet identification information from “adding packet identification information.” In order to expedite prosecution, the claims have been amended to further clarify this limitation. Thus, reconsideration and withdrawal of this rejection is respectfully requested.

Claim 9 has been rejected for reciting the limitation “said packet to be transmitted is transmitted while bypassing said packet identification information addition means and said transmission means.” The claim has been amended to address this issue. Thus, reconsideration and withdrawal of this rejection is respectfully requested.

Claims 12 and 19 have been rejected for reciting the term “same packets.” The claims have been amended to address this issue. Thus, reconsideration and withdrawal of this rejection is respectfully requested.

Prior Art Rejections:

Claims 1, 3-6, 8, 9, 11, 12, 14-16, 18, 20 and 21 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,112,323 to Meizlik et al. (hereinafter “Meizlik”). Claims 12, 14, 15, 18 and 21 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,574,770 to Daudelin et al. (hereinafter “Daudelin”). Claim 2 was rejected under 35 U.S.C. 103(a) as being unpatentable over Meizlik in view of U.S. Patent 6,032,197 to Birdwell et al. (hereinafter “Birdwell”). Claim 7 was rejected under 35 U.S.C. 103(a) as being unpatentable over Meizlik in view of U.S. Patent 6,188,691 to Barkai et al. (hereinafter “Barkai”). Claim 10 was rejected under 35 U.S.C. 103(a) as being unpatentable over Meizlik in view of U.S. Patent 6,577,609 to Sharony (hereinafter “Sharony”). Claim 13 was rejected under 35 U.S.C. 103(a) as being unpatentable over Daudelin in view of Birdwell. Claim 16 was rejected under 35 U.S.C. 103(a) as being unpatentable over Daudelin in view of U.S. Patent 5,793,976 to Chen et al. (hereinafter “Chen”). Claim 17 was rejected under 35 U.S.C. 103(a) as being unpatentable over Daudelin in view of Barkai. Claims 19 and 23 were rejected under 35 U.S.C. 103(a) as being unpatentable over Daudelin in view of U.S. Patent 6,646,987 to Qaddoura et al. (hereinafter “Qaddoura”). Claim 20 was rejected under 35 U.S.C. 103(a) as being unpatentable over Daudelin in view of Sharony. Claim 22 was rejected under 35 U.S.C. 103(a) as being unpatentable over Daudelin in view of Qaddoura and further in view of Sharony. These rejections are traversed for at least the reasons given below.

The Office Action asserts that claims 1, 3-6, 8, 9, 11, 12, 14-16, 18, 20 and 21 are rejected by Meizlik. However, the Action only sets forth rejections against claims 1, 3-6, 8, 9 and 11. There is no indication of rejections set forth against claims 12, 14-16, 18, 20 or 21 with solely Meizlik taken into consideration. Thus, clarification of the rejection of claims 12, 14-16, 18, 20 and 21 by Meizlik is respectfully requested. Given the lack of teaching of the

features of these claims by Meizlik, it is respectfully submitted that Meizlik does NOT anticipate claims 12, 14-16, 18, 20 or 21.

Amended independent claim 1 recites a “packet transmission system” that includes transmission means that transmit “said packet that is allocated said packet identification information and a redundant packet which is a duplicate of said packet that is allocated said packet identification information,” “wherein **said packet and said redundant packet transmitted with the same packet identification information contains an identical sequence number.**” (emphasis added) Thus, the packet transmission system of independent claim 1 can transmit a packet and a redundant packet, each with identical packet identification information and an identical sequence number. This sequence number is later utilized in packet reception in order to not receive the same packet multiple times.

Meizlik fails to teach the feature of utilizing an identical sequence number for identical packets. As cited in the Office Action, Meizlik teaches:

“In the positive reliability mode, the operation of sender 108 is modified somewhat to generate **slightly different packets** for transmission to the recipients. As previously described in conjunction with the statistical reliability mode, **the packets are sequentially numbered in the packet sequence number field, starting with one.**” (column 27, line 66 to column 28, line 4; emphasis added)

First, the “slightly different packets” of Meizlik are in no way identical to “a redundant packet which is a duplicate of said packet that is allocated said packet identification information” of the invention as claimed. Obviously, a slightly different packet cannot be a duplicate of another packet. Second, the slightly different packets utilize different sequence numbers, as pointed out above. Thus, Meizlik in no way teaches or discloses the “packet transmission system” that includes transmission means that transmit “said packet that is allocated said packet identification information and a redundant packet which is a duplicate of said packet that is allocated said packet identification information,” “wherein said packet

and said redundant packet transmitted with the same packet identification information contains an identical sequence number” of independent claim 1. If this rejection is maintained, the Office is respectfully requested to point out where these features can be found in Meizlik.

The dependent claims 2, 3, and 5-11 are also patentable for at least the same reasons as the independent claim 1 on which they ultimately depend. In addition, they recite additional patentable features when considered as a whole. As mentioned above, Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

Claim 2 was rejected under 35 U.S.C. 103(a) as being unpatentable over Meizlik in view of Birdwell. Birdwell does not make up for the deficiencies of Meizlik as shown above. Birdwell in no way teaches or discloses a “packet transmission system” that includes transmission means that transmit “said packet that is allocated said packet identification information and a redundant packet which is a duplicate of said packet that is allocated said packet identification information,” “wherein said packet and said redundant packet transmitted with the same packet identification information contains an identical sequence number” of independent claim 1. If this rejection is maintained, the Office is respectfully requested to point out where these features can be found in either Meizlik or Birdwell.

Claim 7 was rejected under 35 U.S.C. 103(a) as being unpatentable over Meizlik in view of Barkai. Barkai does not make up for the deficiencies of Meizlik as shown above. Barkai in no way teaches or discloses a “packet transmission system” that includes transmission means that transmit “said packet that is allocated said packet identification information and a redundant packet which is a duplicate of said packet that is allocated said packet identification information,” “wherein said packet and said redundant packet transmitted with the same packet identification information contains an identical sequence number” of independent claim 1. If this rejection is maintained, the Office is respectfully requested to point out where these features can be found in either Meizlik or Barkai.

Claim 10 was rejected under 35 U.S.C. 103(a) as being unpatentable over Meizlik in view of Sharony. Sharony does not make up for the deficiencies of Meizlik as shown above. Sharony in no way teaches or discloses a “packet transmission system” that includes transmission means that transmit “said packet that is allocated said packet identification information and a redundant packet which is a duplicate of said packet that is allocated said packet identification information,” “wherein said packet and said redundant packet transmitted with the same packet identification information contains an identical sequence number” of independent claim 1. If this rejection is maintained, the Office is respectfully requested to point out where these features can be found in either Meizlik or Sharony.

Claims 12, 14, 15, 18 and 21 were rejected under 35 U.S.C. 102(e) as being anticipated by Daudelin. Amended independent claim 12 recites a “packet reception system” that includes “reception means capable of receiving duplicate packets that are allocated packet identification information once or a plurality of times without a retransmission request” “wherein each of said duplicate packets includes a plurality of higher level packets.” The Office Action refers to Daudelin to teach that each duplicate packet received by the reception means includes a plurality of higher level packets:

“With reference to FIG. 2, there is shown a flow chart of the error-correcting communication protocol of the present invention. At the occurrence of the event that there are packets to be transmitted from a transmitting endpoint 40.sub.1 at step 200, the packets are separated into a plurality of queues at step 205, one queue for each destination endpoint, where, preferably, all higher-level logical links to the same endpoint share the same queue. When traffic is placed in a previously empty queue, the queue goes from an “empty” state to a “ready” state.” (column 4, lines 1-8)

Daudelin teaches that packets are separated into queues based upon their destination endpoint, such that higher-level logical links preferably share the same queue. However, there is a stark difference between placing packets that are being transmitted over the same higher-

level logical link to the same endpoint are placed in one queue, and including a plurality of higher level packets in one packet. The determination of which packets are included in which queue is in no way equivalent, or even similar, to the including a plurality of higher level packets in one packet.

The Office Action also refers to the following paragraph of Daudelin to teach this feature of independent claim 12:

“Even though packet transmission using an error-correcting communication protocol is guaranteed, because there may be a number of intervening layers of software between the point where packet transmission is guaranteed, and the higher layers of software where the packets are used, it is possible that an interchange between two higher layers of software residing on different endpoints and using an error-correcting communication protocol may still experience errors (e.g., due to processes being re-started, buffer conditions, and/or software defects). However, where the underlying communication mechanism is reliable, simple, low-overhead methods are often used at the higher layers to check the integrity of an interchange. Such a method may include the numbering of packets exchanged at the high level. Therefore, it is contemplated that the function of numbering packets and discarding duplicate packets may not be handled at the level at which this protocol is implemented at all, but may be handled at a higher link level, or even at an application level.”

(column 5, line 66 to column 6, line 17)

Daudelin teaches that the numbering of packets or other checks utilized to maintain the integrity of an interchange of packets may occur at higher levels. However, there is no teaching or disclosure herein that would indicate that the packets themselves contain higher-level packets. Rather, the packets are being handled at higher link levels, such as an application level. There is a distinct difference between a higher level link dealing with

numbering packets or discarding packets, and including higher level packets in a packet. Thus, Daudelin fails to teach all the features of independent claim 12, specifically failing to teach a “packet reception system” that includes “reception means capable of receiving duplicate packets that are allocated packet identification information once or a plurality of times without a retransmission request” “wherein each of said duplicate packets includes a plurality of higher level packets.” If this rejection is maintained, the Office is respectfully requested to point out where these features are found in Daudelin.

The dependent claims 13, 14 and 16-23 are also patentable for at least the same reasons as the independent claim 12 on which they ultimately depend. In addition, they recite additional patentable features when considered as a whole. As mentioned above, Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

Neither Birdwell, Barkai nor Sharony make up for the deficiencies of Daudelin as detailed above. Specifically, neither Birdwell, Barkai nor Sharony teach the usage of duplicate packets as shown above, let alone a duplicate packet that includes a plurality of higher level packets. Thus, if this rejection is requested, the Office is respectfully requested to point out where these features are found in either Daudelin, Birdwell, Barkai, Sharony, or any combination thereof.

Chen also fails to make up for the deficiencies of Daudelin as detailed above. Chen in no way teaches or teach a “packet reception system” that includes “reception means capable of receiving duplicate packets that are allocated packet identification information once or a plurality of times without a retransmission request” “wherein each of said duplicate packets includes a plurality of higher level packets” of independent claim 12. If this rejection is maintained, the Office is respectfully requested to point out where these features can be found in either Meizlik or Chen.

Qaddoura also fails to make up for the deficiencies of Daudelin as detailed above. Qaddoura in no way teaches or teach a “packet reception system” that includes “reception

means capable of receiving duplicate packets that are allocated packet identification information once or a plurality of times without a retransmission request” “wherein each of said duplicate packets includes a plurality of higher level packets” of independent claim 12. If this rejection is maintained, the Office is respectfully requested to point out where these features can be found in either Meizlik or Qaddoura.

Conclusion:

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for

such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,


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